

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A telechelic polyolefin, which is represented by the following general formula (I):

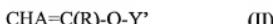


wherein X and Y are each a group containing at least one element selected from oxygen, sulfur, nitrogen, phosphorus and halogens, X and Y may be the same or different, P represents a chain made mainly of only from an olefin selected from the group consisting of ethylene, propylene, 1-butene, 1-pentene, 3-methyl-1-butene, 1-hexene, 4-methyl-1-pentene, 3-methyl-1-pentene, 1-octene, 1-decene, 1-dodecene, 1-tetradecene, 1-hexadecene, 1-octadecene, 1-eicosene, cyclic olefins having 3 to 20 carbon atoms, vinylcyclohexane, and dienes and polyenes having 3 to 20 carbon atoms, and X and Y are bonded to both terminals of P, wherein the number average molecular weight (M_n) and molecular weight distribution (M_w/M_n) obtained by gel permeation chromatography (GPC) is ~~are~~ 9000 or more and in a range from 1.0 to 1.5, respectively.

2. (Cancelled)

3. (Previously Presented) The telechelic polyolefin according to claim 1, which is obtained by: performing the following steps 1, 2 and 1 in this order in the presence of an olefin polymerizing catalyst containing a compound (A) which contains a transition metal in the groups IV to V; and subsequently performing the following step 3 if necessary:

(step 1) the step of bringing it into contact with a polar-group-containing olefin (C) represented by the following general formula (II):



wherein Y' is a group containing at least one element from oxygen, sulfur, nitrogen, phosphorus and halogens, Q is an alkylene group which may have a substituent, a carbonyl group, or bivalent oxygen, A and R each represent a hydrogen atom or a hydrocarbon group which may have a substituent, and A or R may be bonded together to Q to form a ring,

(step 2) the step of bringing the resultant into contact with at least one olefin (D) selected from ethylene and olefins having 3 to 20 carbon atoms n times wherein n is an integer of 1 or more, so as to mix them (provided that when n is an integer of 2 or more, the olefins (D) used in the respective contact operations are different in kind or composition), and

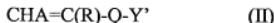
(step 3) the step of chemical conversion.

4. (Previously Presented) A telechelic polyolefin, which is represented by the following general formula (I):



wherein X and Y are each a group containing at least one element selected from oxygen, sulfur, nitrogen, phosphorus and halogens, X and Y may be the same or different, P represents a chain made mainly of an olefin composed only of carbon and hydrogen atoms, and X and Y are bonded to both terminals of P, wherein the molecular weight distribution (M_w/M_n) obtained by gel permeation chromatography (GPC) is from 1.0 to 1.5, wherein the telechelic polyolefin is obtained by: performing the following steps 1, 2 and 1 in this order in the presence of an olefin polymerizing catalyst containing a compound (A) which contains a transition metal in the groups IV to V; and subsequently performing the following step 3 if necessary:

(step 1) the step of bringing it into contact with a polar-group-containing olefin (C) represented by the following general formula (II):



wherein Y' is a group containing at least one element from oxygen, sulfur, nitrogen, phosphorus and halogens, Q is an alkylene group which may have a substituent, a carbonyl group, or bivalent oxygen, A and R each represent a hydrogen atom or a hydrocarbon group which may have a substituent, and A or R may be bonded together to Q to form a ring,

(step 2) the step of bringing the resultant into contact with at least one olefin (D) selected from ethylene and olefins having 3 to 20 carbon atoms n times wherein n is an integer of 1 or more, so as to mix them (provided that when n is an integer of 2 or more, the olefins (D) used in the respective contact operations are different in kind or composition), and

(step 3) the step of chemical conversion.